WHAT IS CLAIMED IS:

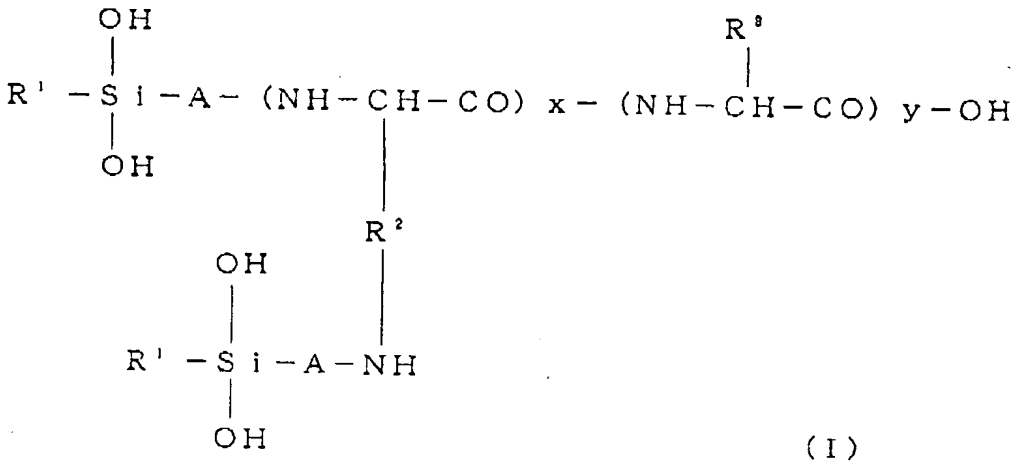
1. A hair treatment agent, a shampoo or a hair coloring agent comprising a silylated peptide-silane compound copolymer composition which is produced by the following process and has viscosity in a range from 500 to 20000 mPa · s in 70% of solid content concentration of said copolymer composition at 20 ℃,

wherein said process comprises:

polycondensing one or more kind selected from silylated peptides represented by the general formula (I) with one or more kind selected from silane compounds represented by the general formula (II) in an aqueous solution in a range of reaction molar ratio of said silylated peptide to said silane compound from 1:1 to 1:100 to form a polycondensed polymer, and then

adding by addition reaction a silane compound represented by the general formula (III) in an aqueous solution to said polycondensed polymer;

wherein said silylated peptide represented by the following general formula (I) is



(I)

, in which R^1 represents a hydroxy group or an alkyl group having 1 to 3 carbon atoms, R^2 represents a residual group of a side chain obtained by removing the terminal end amino group of a basic amino acid having an amino group at the end of a side chain, R^3 represents a side chain of an amino acid other than R^2, A is a connecting moiety and represents at least one group selected from the group consisting of $-CH_2-$, $-(CH_2)_3-$, $-(CH_2)_3OCH_2CH(OH)CH_2-$, $-(CH_2)_3S-$, $-(CH_2)_3NH-$ and $-(CH_2)_3OCOCH_2CH_2-$, and x is from 0 to 50, y is from 1 to 100 and x+y is from 1 to 100, wherein x and y represent only the number of amino acid units and do not represent the order of amino acid sequence;

wherein said silane compound represented by the following general formula (II) is

$$R^4mSi(OH)pY(4-p-m) \qquad (II)$$

, in which m represents an integer from 0 to 2, p represents an integer from 2 to 4, m+p is not more than 4, R^4 represents an organic group in which a carbon atom is directly connected to the silicon atom and R^4s of m may be the same or different,

and Ys of (4-p-m) represent an alkoxy group or hydrogen atom; and

wherein silane compound represented by the following general formula (III) is

$$R^5{}_3Si(OH) \qquad (III)$$

, wherein three R^5s represent organic groups in which a carbon atom is directly connected to the silicon atom and three R^5s may be the same or different.

2. A hair treatment agent according to claim 1, wherein the silylated peptide-silane compound copolymer composition is comprised in an amount of from 0.01 to 5 weight % of the total amount of the agent.

3. A shampoo according to claim 1, wherein the silylated peptide-silane compound copolymer composition is comprised in an amount of from 0.01 to 5 weight % of the total amount of the shampoo.

4. A hair coloring agent according to claim 1, wherein the silylated peptide-silane compound copolymer composition is comprised in an amount of from 0.05 to 10 weight % of the total amount of the agent.